IUBMB Enzyme Nomenclature

EC 2.4.2.1

Common name: purine-nucleoside phosphorylase

Reaction: purine nucleoside + phosphate = purine + α-D-ribose 1-phosphate

Other name(s): inosine phosphorylase; PNPase; PUNPI; PUNPII; inosine-guanosine phosphorylase; nucleotide phosphatase; purine deoxynucleoside phosphorylase; purine deoxyribonucleoside phosphorylase; purine nucleoside phosphorylase; purine ribonucleoside phosphorylase

Systematic name: purine-nucleoside:phosphate ribosyltransferase

Comments: Specificity not completely determined. Can also catalyse ribosyltransferase reactions of the type catalysed by EC 2.4.2.5, nucleoside ribosyltransferase.

Links to other databases: BRENDA, EXPASY, GTD, KEGG, WIT, CAS registry number: 9030-21-1

References:

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3. Heppel, L.A. and Hilmoe, R.J. Phosphorolysis and hydrolysis of purine ribosides from yeast. *J. Biol. Chem.* 198 (1952) 683-694.

4. Kalckar, H.M. The enzymatic synthesis of purine ribosides. *J. Biol. Chem.* 167 (1947) 477-486.

5. Saunders, P.P., Wilson, B.A. and Saunders, G.F. Purification and comparative properties of a pyrimidine nucleoside phosphorylase from *Bacillus stearothermophilus*. *J. Biol. Chem.* 244 (1969) 3691-3697. [Medline UI: 69234752].

6. Tsuboi, K.K. and Hudson, P.B. Enzymes of the human erythrocyte. I. Purine nucleoside phosphorylase; isolation procedure. *J. Biol. Chem.* 224 (1957) 879-887.

[EC 2.4.2.1 created 1961]

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